Findings from the Institute of Medicine's Committee on the Future of Emergency Care in the U.S. Health System

Statement of

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"Emergency Care Crisis: A Nation Unprepared for Public Health Disasters"

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INTRODUCTION

Good morning, Mr. Chairman and members of the Subcommittee. My name is Robert Bass. I am Executive Director of the Maryland Institute of EMS Systems and I served as a member of the Institute of Medicine's Committee on the Future of Emergency Care in the U. S. Health System.

THE IOM

The Institute of Medicine, or IOM as it is commonly called, was established in 1970 under the charter of the National Academy of Sciences to provide independent, objective, evidence-based advice to the government, health professionals, the private sector, and the public on matters relating to medicine and health care.

THE STUDY

The Institute of Medicine's Committee on the Future of Emergency Care in the U.S. Health System was formed in September 2003 to examine the full scope of emergency care; explore its strengths, limitations and challenges; create a vision for the future of the system; and make recommendations to help the nation achieve that vision. The Committee consisted of 40 national experts from fields including emergency care, trauma, pediatrics, health care administration, public health, and health services research. The Committee produced three reports – one on prehospital emergency medical services (EMS), one on hospital-based emergency care, and one on pediatric emergency care. These reports provide complimentary perspectives on the emergency care system, while the series as a whole offers a common vision for the future of emergency care in the United States.

This study was requested by Congress and funded through a Congressional appropriation, along with additional sponsorship from the Josiah Macy Jr. Foundation, the Agency for Healthcare Research and Quality, the Health Resources and Services Administration, the Centers for Disease Control and Prevention, and the National Highway Traffic Safety Administration.

I will briefly summarize the Committee's findings and recommendations, giving particular attention to those that relate to emergency preparedness.

GENERAL FINDINGS

Emergency and trauma care are critically important to the health and well being of Americans. In 2003, nearly 114 million visits were made to hospital emergency departments—more than 1 for every 3 people in the United States. While many Americans need emergency care only rarely, everyone counts on it to be available when needed.

Emergency care has made important strides over the past 40 years: emergency 9-1-1 service now links virtually all ill and injured Americans to an emergency medical response; EMS systems arrive to transport patients to advanced, life-saving care; and scientific advances in resuscitation, diagnostic testing, trauma care and emergency medical care yield outcomes unheard of just two

decades ago. Yet just beneath the surface, a growing crisis in emergency care is brewing; one that could imperil everyone's access to care.

Many emergency departments (EDs) today are severely overcrowded with patients, many of whom are being held in the ED because no inpatient bed is available. The widespread practice of holding admitted patients in the ED ties up precious space, equipment, and staff that cannot be used to meet the needs of incoming patients.

When crowding reaches dangerous levels, hospitals often divert ambulances to other facilities. In 2003, U.S. hospitals diverted more than 500,000 ambulances – an average of one per minute. Diversion may provide a brief respite for a beleaguered staff, but it prolongs ambulance transport times and disrupts established patterns of care. It also creates ripple effects that can compromise care throughout the community. Because crowding is rarely limited to a single hospital, decisions to divert ambulances can prompt others to do the same. When this happens, a community may experience the health care equivalent of a "rolling blackout". Everyone's access to care is affected - insured and uninsured alike.

Physician shortages are another problem. The rising cost of uncompensated care, fear of legal liability for performing risky procedures, and disruptions of daily practice and home lives has led more surgical specialists to opt out of taking ED call. Gaps in specialist coverage increase the frequency of ambulance diversion, because hospitals cannot accept certain types of patients if no specialist is available to treat them.

SHORTCOMINGS IN THE EMERGENCY CARE SYSTEM'S CAPACITY TO RESPOND TO DISASTERS

With many hospitals already operating at or above capacity, it is difficult to envision how they could absorb a surge of casualties from a disaster or major act of terrorism. A sustained outbreak of disease, whether triggered by an emerging strain of influenza or intentional release of a bioterror agent, would be even more problematic because casualties would keep arriving for days, weeks, or months. But regardless of whether a disaster is the result of terrorism, human error, a natural disaster, or epidemic, our nation's emergency care system simply lacks the capacity to mount an effective response. In light of these concerns, the IOM Committee's recommendations have a special urgency.

Training for EMS personnel and hospital staff in disaster procedures is limited. Despite the self-evident fact that mass-casualty events produce mass casualties, only 4 percent of Department of Homeland Security first responder funding in 2002 and 2003 was directed to emergency medical services. As a result, few EMS personnel have received adequate training in how to respond to chemical, biological, radiological, nuclear, and explosive (CBRNE) terrorism, much less natural disasters.

In addition to lack of capacity, many hospitals lack critical infrastructure, such as sufficient intensive care unit (ICU) beds, ventilators, and decontamination units to manage the consequences of a large scale population emergency.

Protecting hospitals and their staff from secondary contamination in the event of biological or chemical events poses extraordinary challenges. The outbreak of severe acute respiratory syndrome (SARS) in Toronto was triggered, in part, by a young man who spent his first night in a crowded Toronto ED with what was thought at the time to be a simple case of pneumonia. In the process, he infected two nearby patients, both of whom subsequently died of SARS (as did the first patient), but not before they infected scores of others, some of whom also died.

If a patient with SARS walked into an American emergency department tonight, the effect would be like tossing a lighted match into a tinder-dry forest.

An important tool in limiting the spread of airborne pathogens is negative pressure rooms that are engineered to keep airborne germs from spreading throughout the emergency department. Unfortunately, the number of such rooms is very limited, and is generally restricted to a handful of tertiary care hospitals in each major population center. Staff must also be protected through appropriate personal protective equipment and respirators. Currently, staff training and provision of equipment are inadequate.

Disaster response capabilities are also hindered by poor communications and lack of coordination. EMS, hospitals, and public safety often lack common radio frequencies, much less interoperable communication systems. These technological gaps are compounded by cultural gaps between public safety providers and emergency care personnel. In many communities, emergency management and homeland security meetings are held without a single health care professional in the room, even though, (in the words of one of my fellow committee members), "Sometimes, in a disaster, people get hurt."

Fragmentation of local efforts is mirrored by lack of coordination at the federal level. Federal responsibility for emergency care is spread across multiple agencies and departments. This may explain, in part, why large amounts of funding are directed towards some priorities, but not others. For example, federal spending on bioterrorism and emergency preparedness in the Department of Health and Human Services (DHHS) rose from $237 million in fiscal year 2000 to 9.6 billion in fiscal year 2006. During this same time period, the Congress eliminated the Trauma/EMS Systems Program at DHHS from the federal budget. There are presently 52 Centers for Public Health Preparedness with federal funding to address various aspects of bioterrorism, but not one federally funded center focusing on the civilian consequences of terrorist bombings. Explosives are the most common instrument of terrorism worldwide.

The current level of funding received by hospitals is inadequate to enable them to develop needed surge capacity for disasters, much less a major flu epidemic.

The needs of children have been largely overlooked, especially in disaster scenarios. Children are far more vulnerable to the consequences of disasters than adults, both physiologically and psychologically. For example, if children sustain burns, they have a greater likelihood of life-threatening fluid loss and susceptibility to infection. If they sustain blood loss, they develop irreversible shock more quickly. Because they are closer to the ground, and have a faster metabolic rate, they are more vulnerable to the effects of toxic gases. Additionally, if separated from their caregiver, they lose their protection and support system. In spite of this, the needs of

children are often overlooked in disaster planning. Many states do not address pediatric needs in their disaster plans, and disaster drills frequently lack a realistic pediatric component. Presently few sheltering sites ensure the availability of resources for children, including formula, diapers, and cribs.

COMMITTEE RECOMMENDATIONS

The Committee offers several recommendations to address these inadequacies.

First, and most important, the best way to insure an effective response in the event of a disaster is to create an emergency care system that effectively functions on a day-to-day basis. The Committee believes that this can best be accomplished by building a nationwide network of regionalized, coordinated, and accountable emergency care systems. To promote the development of these systems, the Committee recommends that Congress: 1) establish a federally funded demonstration program to develop and test various approaches to regionalize delivery of prehospital and hospital-based emergency care, and 2) designate a lead agency for emergency care in the federal government to increase accountability, minimize duplication of efforts and fill important gaps in federal support of the system.

The Committee recommends that states actively promote regionalized emergency care services. This will help insure that the right patient gets to the right hospital at the right time, and help hospitals retain sufficient on-call specialist coverage. Disaster planning would take place within the context of these regionalized systems so that patients get the best care possible in the event of a disaster. Integrating communications systems would improve coordination of services across the region; not only during a major disaster but on a day-to-day basis.

In addition to offering these general recommendations for strengthening the emergency care system, the Committee developed specific recommendations to enhance disaster preparedness. For example, to address concerns about lack of surge capacity, inadequate training, and insufficient protection of hospitals and staff, the Committee recommends that Congress significantly increase preparedness funding in FY 2007 for hospitals and EMS in a number of key areas--surge capacity; trauma care systems; EMS response to explosives; training programs; availability of decontamination showers, standby ICU capacity, negative pressure rooms, and personal protective equipment; and research on response to conventional weapons terrorism. In addition, the Committee recommends that EMS be brought to a level of parity with other public safety entities in disaster planning and operations.

The Committee further recommends that disaster response topics be included as essential elements in the training, continuing education, and credentialing of emergency care professionals (including medicine, nursing, EMS, allied health, public health, and hospital administration).

To address the special needs of pediatric patients in preparing for disasters, the Committee made a number of specific recommendations: minimizing parent–child separation; enhancing the level of pediatric expertise on organized disaster response teams; including pediatric surge capacity in disaster planning; improving access to pediatric-specific medical, mental health, and social

services in disasters; and developing policies that ensure that disaster drills include a meaningful pediatric component.

Finally, the Committee concluded that the Veterans Affairs (VA) hospital system is an underutilized resource for emergency preparedness at the local level. Therefore, there should be greater integration of VA resources into civilian disaster planning.

CLOSING

The Committee believes that the nation's emergency care system is in serious peril. If the system's ability to respond on a day-to-day basis is already compromised to a serious degree, how will it respond to a major medical or public health emergency? The Committee believes that strong measures must be taken by Congress, the states, hospitals and other stakeholders to achieve the level of response that Americans expect and deserve. The Committee's recommendations provide concrete actions that can, and should lead to an emergency care system that is capable of providing safety and security for all Americans.

Thank you for the opportunity to testify. I would be happy to address any questions the Subcommittee might have.